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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jae H. Anh

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EXAMINER

SEALEY, LANCE W

ART UNIT

PAPER NUMBER

2671

22

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/560,424

Applicant(s)

ANH ET AL.

Examiner

Lance W. Sealey

Art Unit

2671

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 03 June 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 6 months from the mailing date of the ~~final rejection~~ **NOTICE OF APPEAL**.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☒ A Notice of Appeal was filed on 19 April 2004. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ they raise the issue of new matter (see Note below);
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 1-20.

Claim(s) withdrawn from consideration: _____

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____


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Continuation of 5. does NOT place the application in condition for allowance because:

With respect to claim 1, the applicants argue, on p.4 of their Response, element by element, that Jordan et al. ("Jordan", U.S. Pat. No. 6,152,731) does not disclose "receiving two or more 3D anatomical maps", "sharing a common plane specified by three or more marker points common to the two or more maps", "placing one or more marker points on one or more teeth" (or even the use of markers), "generating a digital model of the teeth with the marker points", and "aligning the two or more 3D anatomical maps and the digital teeth model using the marker points".

Specifically, with respect to the claim 1 element "receiving two or more 3D anatomical maps", the applicants apparently interpret col.9, ll.18-20 of Jordan as disclosing only one 3D anatomical map because the noun "morphology" in ll.19-20 is singular. However, since the sentence in col.9, ll.18-20 goes on to read "...three-dimensional morphology of the INDIVIDUAL DENTAL ARCHES (capital letters added by examiner for emphasis) of the patient.", and there are inherently two dental arches in a human mouth, the examiner interprets col.9, ll.18-20 as teaching two anatomical maps, one for each dental arch.

Concerning the claim 1 element, "sharing a common plane", it is inherent that there is an imaginary horizontal plane going through the middle of a person's mouth separating the two dental arches, and this plane is represented by the hinge axis data 18, FIG.1 (see col.8, ll.19-21).

Regarding the claim 1 element, "specified by three or more marker points common to the two or more maps," col.10, ll.2-9 states, as an example of a method of measuring the spatial relationship between the upper and lower dental arches in order to provide bite alignment data, "identifying at least three nonlinear points (applicants' "three or more marker points") on each dental arch and measuring matched pairs of such points, i.e., a pair being one point from each arch. Such measurements may be obtained directly from the patient, i.e., in vivo, or from representations of dental arches of the patient, such as impressions of the dental arches (applicants' "3D anatomical maps") or dental study models."

With respect to the claim 1 element, "generating a digital model of the teeth with the marker points", col.8, ll.14-22 describe the input data to the model creation program 10, FIG.1, as "including digital dental arch data 14 (applicants' "digital model of the teeth") representative of upper and lower dental arches of a patient, bite alignment data 16 representative of the relationship of the upper and lower dental arches of a patient, bite alignment data 16 representative of the relationship between the upper and/or lower dental arches of the patient...". Furthermore, col.8, ll.24-34 state that the model creation program 10 uses this input data to create a dental articulation model 11 which is the output of the model creation program and includes AT LEAST (capital letters added by examiner for emphasis) data representative of images of the upper and lower dental arches of the patient as provided by the dental arch data 14, and relational data representative of the spatial relationship of the dental arch images to one another.

But what is this "relational data representative of the spatial relationship of the dental arch images to one another"? The Jordan reference answers this question in col.17, ll.52-65; the "three nonlinear points in each of the upper and lower arches" indicated in ll.54-56 of Jordan are the applicants' "teeth markers". Therefore Jordan fulfills the claim limitation "generating a digital model of the teeth with the marker points".

Finally, the claim 1 element "aligning the two or more 3D anatomical maps and the digital teeth model using the marker points" is disclosed in FIG.7 of Jordan and col.17, ll.40-65.

The applicants also assert, on pages 5 and 6 of their Response, that the references cited to reject independent claims 14 and 15 do not teach certain elements--namely "receiving two or more three dimensional (3D) anatomical maps sharing a common plane specified by three or more marker points common to the two or more maps" (p.5, "The 103 rejection", first paragraph), "the placement of one or more marker points on the teeth", "generating a digital model with a marker point", and "aligning the two or more 3D anatomical maps and the digital teeth model using the marker points" (p.6, last paragraph). However, (1) these elements exist in claim 1, and the examiner has already shown how Jordan discloses these elements, and (2) these elements do not actually exist in claims 14 and 15.

Therefore, since the examiner has further explained why claim 1 is not allowed, and the applicants have not made a case for why the rejections of claims 14 and 15 should be traversed, the rejections stand.